

AMENDMENT NO. 1 SEPTEMBER 2012
TO
IS 694 : 2010 POLYVINYL CHLORIDE INSULATED
UNSHEATHED AND SHEATHED CABLES/CORDS WITH
RIGID AND FLEXIBLE CONDUCTOR FOR RATED
VOLTAGES UP TO AND INCLUDING 450/750 V

(Fourth Revision)

(Foreword, para 2, last sentence) — Delete.

(Foreword, para 2) — Insert the following after para 2:

‘The third revision was brought out in 1990 in which the terms used for the type of cables for use under special conditions had been rationalized, single core flexible cables and five core flexible cords had been added, overall dimensions had been stipulated and reference to the Indian Standards on conductor, insulation, sheath and methods of tests had been added. Also for single core sheathed cables, the process of single extrusion of insulation and sheath had been deleted. The fourth revision of this standard has been brought out to take into account the experience gained since then to align with the international practices, to the extent considered appropriate.’

[Foreword, para 3 (d)] — Substitute the following for existing:

‘d) Thermal stability test included for both insulation and sheath.’

[Foreword, para 3 (e)] — Delete the word ‘expanded’.

(Page 1, clause 1.1, line 11) — Delete the word ‘category’.

(Page 1, clause 1.1, Note 3, last line) — Substitute ‘1 125 V’ for ‘1 500 V’.

Price Group 2

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(Page 1, clause 1.1, Note 9, Section 2) — Insert ‘Non-sheathed’ before ‘Single core’.

(Page 2, clause 3.6, para 2) — Substitute ‘expressed’ for ‘expresses’.

(Page 2, clause 4.1) — Substitute the following for existing clause:

‘4.1 Material

The conductor shall be composed of annealed, bare or tinned high conductivity copper wires complying with IS 8130.

The conductor shall be composed of aluminum wires complying with IS 8130.

A separator tape made of suitable material may be applied over conductor at the discretion of the manufacturer.’

[Page 3, clause 5.1 (c)] — Substitute the following for the existing:

‘c) Type D – Flexible cords’

(Page 6, clause 13, Informal table) — Insert ‘Earth continuity conductor ECC and suitable for low temperature SZ’ after PVC sheath.

(Page 6, clause 15.2(d), line 2) — Insert ‘and halogen’ after smoke.

[Page 7, Table 1, Sl No. (ii), (e), col 2] — Insert ‘and sheath’ after insulation.

[Page 7, Table 1, Sl No. (ii), (f), col 2] — Insert ‘and sheath’ after insulation.

[Page 7, Table 1, Sl No. (ii), (f), col 4] — Substitute ‘IS 5831’ for ‘IS 8130’.

[Page 7, Table 1, Sl No. (ii), (g), col 4] — Substitute ‘IS 5831’ for ‘IS 8130’.

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[Page 7, Table 1, Sl No. (iii), (c) (8), col 3] — Substitute ‘02’ for ‘01,02,FR and FR-LSH’.

[Page 7, Table 1, Sl No. (iii), (c) (9), col 3] — Substitute ‘02, FR and FR-LSH’ for ‘01,02,FR and FR-LSH’.

[Page 7, Table 1, Sl No. (iii), (d) (11), col 2] — Insert the following after 11)

‘12) Cold bend test	02	IS 5831	20
13) Cold impact test	02	IS 5831	21’

[Page 7, Table 1, Sl No. (iii), (e) (2), col 2] — Delete and renumber the subsequent numbers.

(Page 9, Section 2) — Insert ‘NON-SHEATHED’ before SINGLE CORE CABLES in the title.

(Page 9, clause 16) — Substitute the following for the existing title:

‘SINGLE CORE NON-SHEATHED CABLES WITH RIGID CONDUCTOR (CLASS 1 OR CLASS 2) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’

(Page 9, clause 17) — Substitute the following for the existing title:

‘SINGLE CORE NON-SHEATHED CABLES WITH FLEXIBLE CONDUCTOR FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’

(Page 10, clause 18) — Substitute the following for the existing title:

‘SINGLE AND MULTICORE CIRCULAR PVC INSULATED AND SHEATHED CABLES WITH RIGID CONDUCTOR (CLASS 1 OR CLASS 2) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’

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(Page 11, *clause 18.2*) — Substitute the following for the existing clause:

‘18.2 Tests

The compliance with the requirement of **18.1** shall be checked by inspection and by tests given in Table 1.’

(Page 11, *clause 19*) — Substitute the following for the existing title:

‘SINGLE AND MULTICORE CIRCULAR PVC INSULATED AND SHEATHED CABLES/CORDS WITH FLEXIBLE CONDUCTOR (CLASS 5) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’.

(Page 12, *clause 19.1.5, para 1, line 1*) — Substitute the following for the existing line

‘The sheath shall be PVC compound type ST3 in’.

(Page 12, *clause 19.1.5, para 4*) — Substitute the following for the existing para:

‘The thickness of PVC sheath determined by taking average of number of measurements shall not be less than nominal value (t_s) specified in Table 5 for fixed installation and Table 6 for flexible PVC insulated and sheathed cables and Table 7 for flexible insulated and sheathed cords and flexible twin twisted and twin parallel cable by more than $0.1 \text{ mm} + 0.15 t_s$.’

(Page 12, *clause 20*) — Substitute the following for the existing title:

‘MULTICORE CIRCULAR PVC INSULATED AND SHEATHED CABLES WITH FLEXIBLE CONDUCTOR (CLASS 5) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’.

(Page 12, *clause 20.1.3, para 1, line 3*) — Substitute ‘Lay-up of cores’ for ‘lay of cores’.

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(Page 12, clause **20.1.4**, line 1) — Delete ‘For sheathed cable’.

(Page 13, Table 6, col 4 to col 8) — Substitute the following for the existing heading:

‘Nominal Thickness of sheath, t_s ’.

(Page 13, Table 7) — Substitute the following for the existing table heading:

‘Flexible PVC Insulated and Sheathed Cords (Circular) and Flexible Twisted Twin and Parallel Twin Cable’

(Page 13, Table 7, col 4 to col 8) — Substitute the following for the existing heading:

‘Nominal Thickness of Sheath, t_s ’.

(Page 14, clause **21**) — Substitute the following for the existing clause:

‘PARALLEL TWIN AND TWISTED TWIN FLEXIBLE PVC INSULATED NON-SHEATHED CORDS WITH FLEXIBLE CONDUCTOR (CLASS 5) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’

(Page 12, clause **21.1.2**, line 5) — Substitute ‘Table 7’ for ‘Table 10’.

(Page 12, clause **21.1.3**, last sentence) — Substitute the following for the last line:

‘The dimension shall be as per Table 7 and the lay up of cores shall be as per Table 8.’

(Page 12, clause **20.1.4**, last para) — Delete ‘The sheath shall be absent in case of unsheathed cable’.

(Page 14, clause **22**) — Substitute the following for the existing clause:

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‘TWO AND THREE CORE FLAT CABLES WITH PVC INSULATION AND SHEATH HAVING STRANDED OR FLEXIBLE CONDUCTOR (CLASS 2 OR CLASS 5) FOR GENERAL PURPOSE (70°C) OR HEAT RESISTANT (85°C)’

(ETD 09)